## Performance

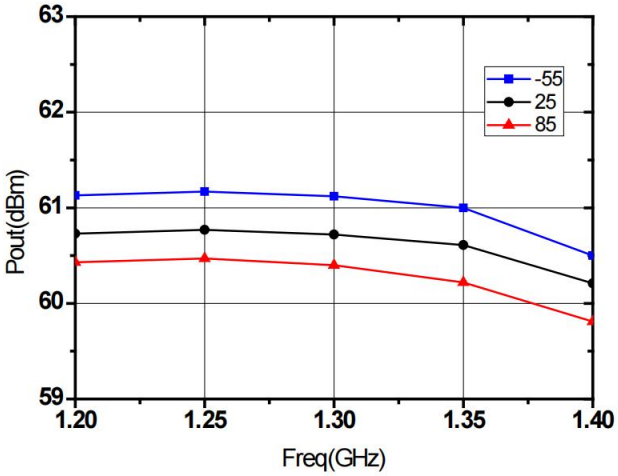
- Technology: 0.5um Power GaN HEMT
- Frequency: 1.2~1.4GHz
- Typical Pout : 60dBm
- Typical Gain: ≧15dB
- Typical PAE: ≧65%
- Bias: 50V/-3.1V
- Package: Metal Ceramic

## Electrical Specifications ($T_A$=25℃,$V_d$=50V,Vg=-3.1V,F: 1.2~1.4GHz,PL=100us,D.C=10%)

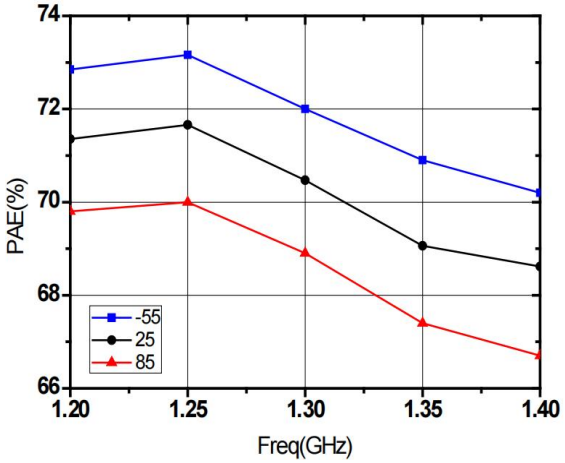
| Symbol | Parameter | Min | Typical | Max | Unit |
|---|---|---|---|---|---|
| Pout | Output Power | 60 | - | - | dBm |
| Gp | Power Gain | 15 | - | - | dB |
| ηadd | Power Added Efficiency | 65 | - | - | % |
| △Gp | Gain Flatness | -0.8 | - | +0.8 | dB |
| Rth | Thermal Resistance | - | - | 0.15 | ℃/W |

## Test Curves

Pout&Freq. @ Different Temp.




PAE&Freq. @ Different Temp.

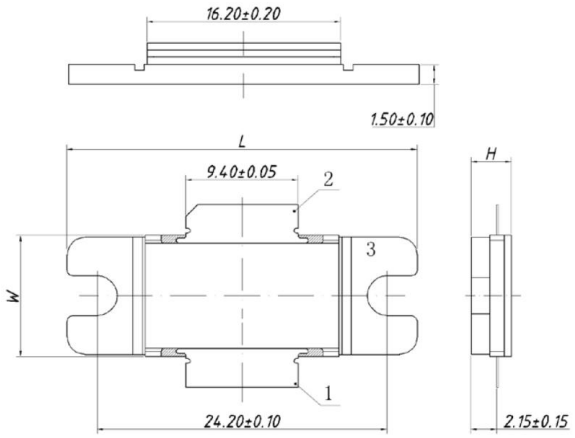


## Absolute Max Ratings ($T_A$=25℃)

| Symbol | Parameter | Value | Remark |
|---|---|---|---|
| Vd | Drain Voltage | 55V | |
| Vg | Grid Voltage | -1.5~-10V | |
| Tch | Channel Temperature | 225℃ | 【1】 |
| Tm | Mounting Temperature | 300℃ | 1 min, $N_2$ Protection |
| $T_A$ | Operating Temperature | -55~85℃ | |
| Tstg | Storage Temperature | -55~125℃ | |

**【1】Exceeding any one or combination of these limits may cause permanent damage.**

## Outline Drawing

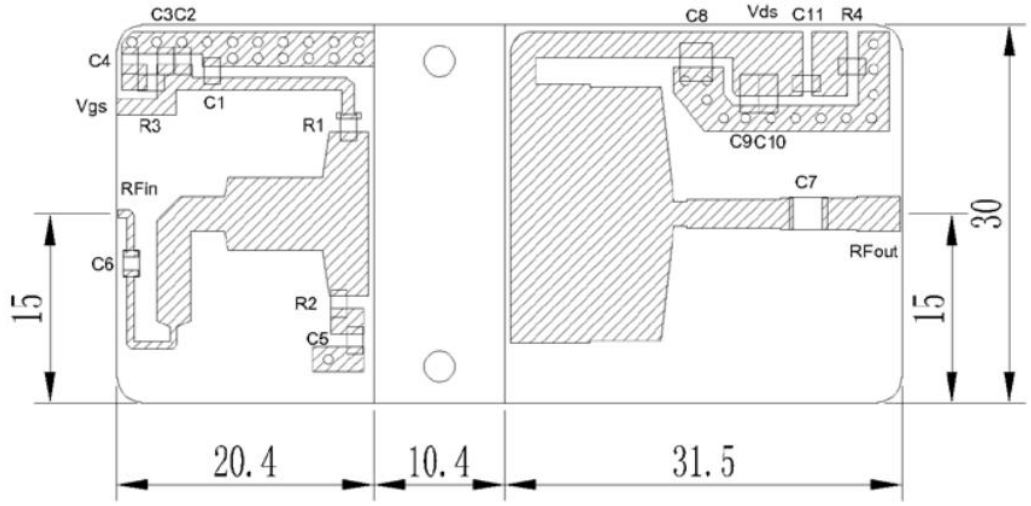



## Dimension symbols

| Symbol | Value (unit: mm) | | |
|---|---|---|---|
| | Min. | Typ. | Max. |
| W | 10.05 | 10.2 | 10.35 |
| L | 29.2 | 29.3 | 29.4 |
| H | 4.1 | 4.3 | 4.5 |

| No | Function | No | Function |
|---|---|---|---|
| 1 | Vg | 3 | GND |
| 2 | Vd | | |

## Application Circuit



| Symbol | Value | Package | Note |
|---|---|---|---|
| C1 | 27pF | 0805 | |
| C2、C4、C5、C11 | 1000pF | 0805 | |
| C3 | 10nF | 0805 | |
| C6 | 22pF | 0805 | RF capacitance with high Q value |
| C7 | 56pF | 1210 | RF capacitance with high Q value |
| C8 | 27pF | 1210 | RF capacitance with high Q value |
| C9 | 1000pF | 1206 | |
| C10 | 10nF | 1206 | |
| R1 | 2Ω | 0805 | |
| R2 | 180Ω | 0805 | |
| R3、R4 | 50Ω | 0805 | |

**Note:**

(1) The power-on sequence shall be in strict accordance with the sequence of applying negative power first and then positive power. When power-off, the leakage voltage shall be reduced first and then the grid voltage shall be reduced;

(2) This product is a high-power GaN device. Pay attention to maintain good heat dissipation during use. Insufficient heat dissipation will cause the temperature rise of the tube core, affecting Performance and service life;

(3) This product is an electrostatic sensitive device. It needs to pay attention to electrostatic protection during storage and use, and it needs to be grounded well during use.